GORFINKEL', V.M.; ZHIKIN, L.V.

Steel smelting for shaped castings. Lit.proizv. no.11:39-40 N '61. (MIRA 14:10)

(Steel—Electrometallurgy)

S/122/61/000/007/004/007
D209/D304

1.1100

AUTHOR: Zhiklenkov, Ye.S., Engineer

TITLE: Gear cutting machine no. 528 for the hot tooth cutting of conical gear wheels

PERIODICAL: Vestnik mashinostroyeniya, no. 7, 1961, 46 - 48

TEXT: A completely new approach to gear cutting is described. In 1960 two semi-automatic machines were built in the experimental factory of NIITAvtoprom for the hot cutting of teeth of spiral-conical wheels used in the transmission system of automobiles. By a special tooth cutting fixture attached to the machine, the bevel gears of all cars and tractors with an apex angle of 60 - 72°, diameters 175 - 350 mm and modulus of 4 - 10 can be cut. The profile formation is achieved by plastic deformation of the material. The maximum tooth length is 20 mm and the output of the machine is 20 to 30 gear wheels per hour. The process consists of the following: The work piece is first machined on semi-automatic lathes and is

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S/122/61/000/007/004/007
D209/D304

Gear cutting machine no. 528 ...

then placed on the table of the machine where it is held in the chuck of the "work piece spindle" and is automatically tightened. Electrical surface heating of the work piece takes 55 secs., the maximum temperature being approximately 1250°C. The heater automatically retracts and brings down the spindle of the tooth cutting instrument. This spindle starts to rotate due to the rotation of the work piece spindle by means of two conical synchronizing wheels having radially extended teeth. The elongated teeth of the synchronizers allow the tool to rotate before it starts cutting. The maximum pressure between the two rotating units is 75 tons, exerted by a hydraulic cylinder. Due to the high temperature, pressure movement of the hot metal takes place, filling the spaces between the teeth of the cutter. The movement of the metal along the teeth of the cutter is controlled by an inner and outer flange. Fig. 2 shows the mechanism of the process, where it is emphasized that clearance S must be smaller than S^1 since this factor plays an important part in the movement of the hot metal. The cutting of wheels lasts 1.5 mins. To prevent oxidization of the hot metal,

Card 2/4

heating is carried out under a protective layer and a lubricant is used to reduce friction. This process gives a 40 % improvement when using 12X2H4A (12Kh2N4A) alloy steel. During the process a 50 HRC unit hardness oxide film forms on the surface which is removed by subsequent heat treatment. The average deviation in pitch due to eccentricity is 0.5 mm. This is accurate enough for tractor applications, but further machining is required for use in automobile manufacture. The author concludes that gears cut by this method show an improvement in durability as opposed to conventionally cut gears. The only disadvantage of the machine appears to be its heavy construction which leads of profile deformation. There are 3 figures.

ZHIKOV, V.V.

Abstract equations with almost periodical coefficients. Dokl. AN SSSR 153 no.3:555-558 Jl '65. (MIRA 18:7)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova. Submitted January 15, 1965.

L 19198-63 EWP(j)/EWP(q)/EWT(m)/BDS AFFTC/ASD/ESD-3 Pc-4/Pq-4 RM/WH/
MAY

ACCESSION NR: AR3004196 S/0276/63/000/005/B131/B132

71

SOURCE: RZh. Tekhnologiya mashinostroyeniya, Abs. 5B675

AUTHOR: Zhikova, V. P.; Svetlov, V. A.; Smirnov, N. S.

TITLE: Determination of mechanical strength of enamel coating on the inner surface of pipes

CITED SOURCE: Tr. Ural'skogo n.-i. in-ta chorn. metallov, v. 1, 1961, 302-303

TOPIC TAGS: mechanical strength, enamel coating, enamel pealing, enamel breaking, liquid contact material

TRANSLATION: A method has been developed for determining the mechanical strength of enamel, glass and other electrically non-conductive coatings of the inner surface of seamless welded steel pipes of various diameters. The mechanical strength of coatings if characterized by the magnitude of loading (applied to the investigated pipe perpendicular to its axis), at which the coating uniformity is affected. The moment of coating violation (peeling or breaking of enamel, etc.) is determined by a measuring device, connected to the electric circuit in series with the vessel. Solution of sodium chloride in the vessel serves as a liquid contact with the

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L 19198-63

ACCESSION NR: AR3004196

metallic pipe material when the coating is damaged. Five simultaneous measurements are required for obtaining results with up to 10% accuracy. L. Kamionskiy.

DATE ACQ: 21Jun63 SUB CODE: IE, MA ENCL: 00

Card 2/2

ZHIKOVSKIY, A.V., professor (Kiyev)

Soil and vegetation resources of China ("Soils and forests of China; a geographical collection." Reviewed by A.V. Zhukovskii). Priroda 45 no.6:121-122 Je '56. (MLRA 9:8)
(China--Forests and forestry) (China--Soils)

STRIZH, N.I.; ZHIKREVETSKIY, N.A.

Operation of track circuits in districts with reinforced concrete ties. Avtom., telem. i sviaz' 8 no.10:18-22 O '64. (MIRA 17:11)

1. Glavnyy inzh. sluzhby signalizatsii i svyazi Severo-Kavkazskoy dorogi (for Strizh). 2. Starshiy inzh. laboratorii signalizatsii i svyazi Severo-Kavkazskoy dorogi (for Zhikrevetskiy).

ZHIKREVETSKIY, N.A.

Concerning the "Temporarily effective regulations on overvoltage protection of centralized traffic control systems." Avtom., telem. i sviaz' 9 no.12:19-21 D '65. (MIRA 19:1)

1. Starshiy inzh. laboratorii signalizatsii i svyazi Severo-Kavkazskoy dorogi.

ZHIKREVETSKIY, N.A., starshiy inzh.

Bataysk railroad district has become an enterprise of communist labor. Avtom., telem. i sviaz' 5 no.6:26-28 Je '61. (MIRA 14:9)

1. Laboratoriya signalizatsii i svyazi Severo-Kavkazskoy dorogi.

(Bataysk--Railroads--Employees)

ZHIKREVETSKIY, N.A., starshiy inzh.

We have corrected the operational faults in the audio signaling devices of switching systems. Avtom., telem. i sviaz' 5 no.10: 40-41 O '61. (MIRA 14:9)

1. Laboratoriya signalizatsii i svyazi Severo-Kavkazskoy dorogi.
(Railroads—Switching) (Railroads—Signaling)

ZHIKUL, M.F. [Zhykul, M.F.]

Cultivation of medicinal plants. Farmatsev. zhru. 17 no.1:82 '62. (MIRA 15:6)

1. Apteka No.34 s.Pleteniy Tashlik, Kirovograds'koi oblasti.
(BOTANY, MEDICAL)

GORYAYEV, M.I.; ZHIKULINA, Ye.B.

Antitumor preparations. Part 1: Synthesis of di-(2-chlorethyl)-amide 2-methyl-4-chlorphenoxyacetic acid and di-(2-chlorethyl)-hydrazide 2-methyl-4-chlorphenoxyacetic acid. Trudy Inst. klin. i eksp. khir. AN Kazakh. SSR 6:200-203 '60. (MIRA 13:12)
(ACETIC ACID)

RABAN, V.; VOLOSHINSKIY, V.; ZHILA, A.; ZHADANOVSKIY, D. (Volynskaya oblast')

For large-scale activity in inventing and efficiency promotion. Fiz. v shkole 20 no.6:104 N-D '60. (MIRA 14:2)
(Technological innovations)

ZHILA, F.

Finishing surface irregularities by means of hot steel. Avt.transp. 33 no.8:26 Ag'55. (MLRA 8:12)
(Automobiles--Transmission devices)

ZHILA, F. M.= "Turning hot steel." Min Higher Education Ukrainian SSR. Kiev Order of Lenin Polytechnic Inst. Kiev, 1956. (Dissertations for the Degree of Candidate in Technical Sciences).

SO: Knizhnaya Letopis' No. 22, 1956

ZHILA, G.V., kand.khim.nauk; PAS'KO, S.P., inzh.; KOTOV, M.P., prof.

Tanning goatskins with tanning extracts manufactured with the use of naphtalene sulphonic acid as reducer. Report No.1. Izv. vys.ucheb.zav.; tekh.leg.prom. no.3:96-103 '60. (MIRA 13:8)

1. Kiyevskiy tekhnologicheskiy institut legkoy promyshlennosti. Rekomendovana kafedroy tekhnologii kozhi.
(Tanning)

ZHILA, G.V., kand.khim.nauk; KOTOV, M.P., prof.

Effect of the concentration, duration, and temperature during thermolysis on the changes in specific viscosity of 0,5 o/o gelatin solution. Izv. vys.ucheb. zav.; tekh.leg. prom. no.2:21-25 '58.
(MIRA 11:6)

1.Kiyevskiy tekhnologicheskiy institut legkoy promyshlennosti.
(Gelatin--Testing) (Thermal analysis)

KROTENKO, V.P., inzh.; ZHILA, G.V., kand.khim.nauk; POLYANICHKO, A.L., student

Increasing the thermal and corrosion stability of TOS thermistors. Izv.vys.ucheb.zav.; tekh.leg.prom. no.2:144-146 '61. (MIRA 14:5)

1. Kiyevskiy tekhnologicheskiy institut legkoy promyshlennosti. Rekomendovana kafedroy avtomatizatsii proizvodstvennykh protsessov. (Thermistors)

ZHILA, G.V., kand. khim. nauk; KOTOV, M.P., prof.

Investigating assymetry changes in gelatin molecules caused by the action of aqueous solutions of urea. Izv. vys.ucheb.zav.; tekh.leg. prom. no.4:14-21 '58. (MIRA 11:12)

1.Kiyevskiy tekhnologicheskiy institut legkoy promyshlennosti.
(Gelatin) (Urea)

ZHILA, G. V.

"Investigation of the effect of certain non-electrolytes on water solutions of gelation when heated." Acad Sci Ukrainian SSR. Inst of General and Inorganic Chemistry. Moscow, 1956. (Dissertations of the Degree of Candidate in Chemical Sciences).

SO: Knizhnaya letopis', No. 16, 1956

ZHILA, L.A. [Zhyla, L.A.]

Thiocyanation of oleic and elaidic acids and their esters. Pratsi Od. un. zbir. mol. vchen. un. 148 no.3:161-166 '58 (MIRA 13:3)

1. Nauchnyy rukovoditel' - prof. O.K. Plisov.
(Oleic acid) (Elaidic acid)
(Thiocyanation)

AUTHORS: Plisov, A. K., Zhila, L. A.

SOV/79-29-1-68/74

TITLE: Structure and Properties of the Unsaturated Acids and Their Derivatives (Konfiguratsiya i svoystva nepredel'nykh kislot i ikh proizvodnykh). X. Thiocyanation of Oleic and Elaidic Acids and Their Esters (X. Rodanirovaniye oleinovoy i elaidinovoy kislot i ikh efirov)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 1, pp 323-328 (USSR)

ABSTRACT: Based upon the previous finding (Refs 1,2) that oleic and elaidic acid as well as their methyl esters react with different rapidity with thiocyanogen solutions and that the alcohol radicals exercise a different influence upon the reactivity of the cis and trans derivatives of unsaturated acids, the authors decided to solve this problem by a thiocyanation reaction. Apart from this, chemists are also interested in thiocyanation and thiocyanogen compounds as they are used in vulcanization of rubber, in medicine (Ref 3), in dye and inseticide production. For this purpose the following esters were synthesized: methyl-, ethyl-, butyl-, isobutyl-tert-amyl-, n.-hexyl-, benzyl-, phenyl- and α-naphthyl esters of oleic and elaidic acid. The thiocyanation of these compounds was carried out in reagents at

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Structure and Properties of the Unsaturated Acids and Their Derivatives. X. Thiocyanation of Oleic and Elaidic Acids and Their Esters

SOV/79-29-1-68/74

various temperatures and in various concentrations. The results given in the experimental part give evidence of the fact that in the case of geometrical isomeric esters of the unsaturated acids the cis form thiocyanates more rapidly than the trans form. Apart from this, the influence exercised by the length of the chains and the dimension of the alcohol radical upon the reaction became particularly clear in the thiocyanation. For the purpose of clarifying the chemism of the thiocyanation reaction, the final products formed by the thiocyanation of the methyl esters of oleic and elaidic acid, i.e. dithiocyanogen methyl oleate and dithiocyanogen methyl elaidate were separated and characterized. There are 4 tables and 9 references, 5 of which are Soviet.

ASSOCIATION: Odesskiy institut pishchevoy i kholodil'noy promyshlennosti (Odessa Institute of the Food and Refrigeration Industry)

SUBMITTED: December 4, 1957

Card 2/2

ZHILA, L.A., aspirant

Synthesis and properties of some esters of oleic and elaidic acids. Trudy OTIPiKhP 9 no.2:115-121 '59. (MIRA 13:9)

1. Kafedra organicheskoy khimii Odesskogo tekhnologicheskogo instituta pishchevoy i kholodil'noy promyshlennosti.
(Oleic acid) (Elaidic acid)

ZHILA, L.A., aspirant

Isolation and some properties of the thiocyanates of methyl esters of isomeric oleic acids. Trudy OTIPiKhP 9 no.2:123-125 '59.
(MIRA 13:9)

1. Kafedra organicheskoy khimii Odesskogo tekhnologicheskogo instituta pishchevoy i kholodil'noy promyshlennosti.
(Thiocyanate) (Oleic acid)

ZHILA, L. A., Candidate Chem Sci (diss) -- "The thiocyanation of oleic and elaidic acids and their esters". Odessa, 1959. 15 pp (Min Higher Educ Ukr SSR, Odessa State U im I. I. Mechnikov), 150 copies (KL, No 24, 1959, 128)

ZHILA, L.A.

Synthesis and properties of some esters of oleic and elaidic acids. Izv.vys.ucheb.zav.; khim.i khim.tekh 2 no.4:550-552 '59. (MIRA 13:2)

1. Odesskiy tekhnologicheskiy institut pishchevoy i kholodil'noy promyshlennosti. Kafedra tekhnologii organicheskoy khimii.
(Oleic acid) (Elaidic acid)

5 (3) SOV/153-2-4-15/32

AUTHOR: Zhila, L. A.

TITLE: Synthesis and Properties of Several Esters of Oleic and Elaidic Acids

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1959, Vol 2, Nr 4, pp 550 - 552 (USSR)

ABSTRACT: In connection with the investigation of the effect of alcohol radicals of the cis- and trans-isomeric acids mentioned in the title on the thiocyanation reaction, the author obtained several undescribed esters: n-hexyl oleate, n-hexyl elaidate, tertiary amyl elaidate, phenyl elaidate, α-naphthyl oleate, and α-naphthyl elaidate. Their preparation and their properties are described in special chapters. The method of preparing esters of tertiary alcohols from acid chlorides and an Mg-organic compound was simplified by the authors. There are 8 references, 7 of which are Soviet.

Card 1/2

Synthesis and Properties of Several Esters of Oleic and Elaidic Acids SOV/153-2-4-15/32

ASSOCIATION: Odesskiy tekhnologicheskiy institut pishchevoy i kholodil'noy promyshlennosti, Kafedra tekhnologii organicheskoy khimii (Odessa Technological Institute of Foodstuffs and Refrigeration Industry; Chair of Technology of Organic Chemistry)

SUBMITTED: June 1o, 1958

Card 2/2

PLISOV, A.K.; ZHILA, L.A.

Configuration and properties of unsaturated acids and their derivatives. Part 10: Thiocyanation of oleic and elaidic acids and their esters. Zhur.ob.khim. 29 no.1:323-328 Ja '59. (MIRA 12:4)

1. Odesskiy institut pishchevoy i kholodil'noy promyshlennosti. (Elaidic acid) (Oleic acid) (Thiocyanation)

ZHILA, P. V.

Welding

Methods of welding steel constructions. Biul. stroi. tekh. 9 no. 7, 1952.

Monthly List of Russian Accessions, Library of Congress, August 1952. Unclassified.

SOROKINA, N.S., kand. khimich. nauk, dotsent; BOGDANOV, L.A., inzh.; ANAN'YEVA, L.A., inzh.; KHARLASHKIN, V.I., inzh.; ZHILA, T.I., inzh.; PIVOVAROVA, T.V., inzh.; KOTOV, M.P., prof.

Some problems in the cyanoethylation, carboxylation, alkylation and acylation of gelatin. Izv. vys. ucheb. zav.; tekh. leg. prom. no.3:70-75 '63. (MIRA 16:7)

1. Kiyevskiy tekhnologicheskiy institut legkoy promyshlennosti. Rekomendovana kafedroy tekhnologii kozhi.
(Gelatin) (Polymerization)

BILEK, Vatslav, inzhener; BLATTNYY, TStipor, inzhener, doktor; BROZHEK, Karl, inzhener; DOGNAL, Lyudvig; GLAVACHEK, Frantishek; LGOTSKIY, Alois, inzhener, doktor; MAKHAT, Frantishek; NAZAL, Yaroslav; OSVAL'D, Vladimir, inzhener; RUZHICHKA, Moymir, inzhner; SALACH, Vatslav, inzhener, doktor; TRKAN, Miroslav, inzhener; ZHILA, Vladimir; SHKOP, Ya., inzhener [translator]; MEDINTSEV, M., inzhener, [translator]; MASLOVA, Ye.F., redaktor; GOTLIB, E.M., tekhnicheskiy redaktor.

[Techology of malt and beer] Tekhologiia soloda i piva. Avtorskii kollektiv Vatslav Bilek i dr. Avtoriz. perevod s cheshskogo IA. Shkopa i M. Medintseva, Moskva, Pishchepromizdat. Vol. 1. [Malt production] Proizvodstvo soloda. Translated from the Czech. 1957. 285 p. (MLRA 10:6)

(Malt)

ZHILA, Ye. S.

ZHILA, Ye. S. -- 1940: Laboratory of General Physiology (Chief: A. D. Slonim) Subtropical Affiliate of the All-Union Institute of Experimental Medicine. (Scientific Leader: Professor K. M. Bykov).

SO: CIA, FDD TRans of Table of Contents, Fiziologicheskiy Zhurnal, Vol 28, Nos 1-6, For Official Use Only p3

ZHILA, Ye.S.; ZAMANSKIY, L.N.; LOPUSHANSKIY, A.I.

Distribution and elemination of S^{35} -labeled radioactive penicillin in rats and rabbits. Vrach.delo no.8:879 Ag '57. (MLRA 10:8)

1. Kafedra biokhimii (zav. - dotsent L.N.Zamanskiy) Chernovitskogo meditsinskogo instituta
(PENICILLIN)

ZAMANSKIY, L.N.; LOPUSHANSKIY, A.I.; ZHILA, Ye.S.; KAPRALOVA, Ye.V.
(Chernovitsy)

Biochemistry of the stimulation of experimental wound healing.
Eksper.khir. 4 no.4:56 Jl-Ag '59. (MIRA 12:11)
(WOUND HEALING metabolism)

ZHILA, YE.S., ZAMANSKIY, L.N., KAFRALOVA, YE.V., KATS, B.I., LOPUSHANSKIY, A.I., SIVER, P.YA., YUKHIMETS, A.D. (USSR)

"Some Data on the Biochemistry of the Enhancement of Regeneration."

Report presented at the 5th Int'l. Biochemistry Congress, Moscow, 10-16 Aug 1961

ZHILA, Yu.S.

Use of a fixating device made from horn in treating pseudarthrosis. Ortop., travm. i protez. 26 no.8:80-82 Ag '65. (MIRA 18:9)

1. Iz kafedry ortopedii i travmatologii (zav.- chlen-korrespondent AMN SSSR prof. F.R. Bogdanov) Kiyevskogo instituta usovershenstvovaniya vrachey (rektor - dotsent M.N. Umovist). Adres avtora: Kiyev, Tarasovskaya ul., d.9, obshchezhitiye Instituta usovershenstvovaniya vrachey.

ZIL'BER, G.M., inzh.; BULANZHE, I.N., kand. khim. nauk, dotsent

Chemical nickel coating of some machine parts used in light industry. Izv. vys. ucheb. zav.; mashinostr. no.10:209-215 '63. (MIRA 17:3)

1. Kiyevskiy tekhnologicheskiy institut legkoy promyshlennosti i Kiyevskiy eksperimental'no-mekhanicheskiy zavod.

ZIL'BERSHTEYN, G.D.

Unit for the vitaminizing of flour. Biul.tekh.-ekon.inform.Gos. nauch.-issl.inst.nauch.i tekh.inform. no.12:75-76 '63. (MIRA 17:3)

ZHILENKO, G.

CA

2

PROCESSES AND PROPERTIES INDEX

Double decomposition in the absence of solvents. The reciprocal system $PbCl_2 + 2AgBr$ or $2AgCl + PbBr_2$. A. P. Palkin and G. F. Zhilenko. *Acta Univ. Voronezhiensis* (U. S. S. R.) 16, No. 4, Sect. Chem., 71-81 (in English, 81) (1939); cf. *C. A.* 33, 8034[9].—The following systems were studied by thermal methods: $AgBr-PbBr_2$, eutectic at 68.26% $PbBr_2$ and 270°; $AgCl-PbCl_2$, eutectic at 60% AgCl and 310°; $AgCl-AgBr$, continuous solid solns. with a max.; $PbBr_2-PbCl_2$, solid solns.; $AgBr-PbCl_2$, eutectic at 68.4% $PbCl_2$ and 328°; and $AgCl-PbBr_2$, where $AgBr.2PbBr_2$ is formed, eutectic at 55.0 and 73.8% $PbBr_2$ and 326 and 328°, resp. The following ternary systems, in which 2 components were always in isomic proportions, were also studied: (65% $PbBr_2$ + 35% Ag_2Br_2)-$PbCl_2$; (55% $PbBr_2$ + 45% Ag_2Br_2)-$PbCl_2$, eutectic at 17.2% $PbCl_2$ and 298°; (57% $PbBr_2$ + 43% Ag_2Br_2)-Ag_2Cl_2; (26% Ag_2Br_2 + 74% Ag_2Cl_2)-$PbCl_2$, eutectic at 54.4% $PbCl_2$ and 322°; (50% AgCl + 50% $PbCl_2$-Ag_2Br_2); (50% $PbCl_2$ + 50%

see other side

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

$PbBr_2$)–$AgCl_2$, eutectic at 47.0% $AgCl_2$ and 324°; (50% $PbCl_2$ + 50% $PbBr_2$)–$AgBr_2$, eutectic at 41.2% $AgBr_2$ and 314°; and (90% $PbBr_2$ + 10% $PbCl_2$)–$AgBr_2$, eutectics at 36.4 and 26.0% $AgBr_2$ and 280° and 291°, resp. The diagram for the entire system was constructed from the above data. The system has two main crystn. fields: AgBr + AgCl and $PbBr_2$ + $PbCl_2$ and small $AgBr.2PbBr_2$ crystn. field, which is confluent with the 2nd field. The most stable diagonal in the system is $PbCl_2$–$AgCl_2$ couple. In general, the equil. of investigated reactions tends to shift to the left, toward a most stable couple.

A. A. Podgorny

ZHILENKO, G.F.

CA

2

1

Chemical stability of glasses formed in the system CaB_2O_7–$CaSO_4$. G. F. Zhilenko (Voronezh State Univ.). Izvest. Sektora Fiz.-Khim. Anal., Inst. Obshchei i Neorg. Khim., Akad. Nauk S.S.S.R. 14, No. 2, 62-6(1948).—The phase diagram of the system was correlated with the chem. resistance of glass made from this system. The system has 3 eutectics at 960 and 1070° corresponding to 10 and 65 mol. % of $CaSO_4$, resp., and a max. at 1128° corresponding to $CaSO_4 \cdot CaB_2O_7$. Four glasses were prepd. having the compn.: (1) CaB_2O_7, (2) CaB_2O_7 90 and $CaSO_4$ 10 mol. % (1st eutectic), (3) CaB_2O_7 80 and $CaSO_4$ 80 mol. % (max.), and (4) CaB_2O_7 35 and $CaSO_4$ 65% (2nd eutectic). The glasses were ground, freed of fines, and the fraction 0.3-0.75 mm. was used for detns. Ca^{++}, SO_4^{--} and B_2O_3 were detd. in soln. after keeping samples for 24 hrs. in distd. H_2O with cont. agitation. Glass (1) decompd. to the extent of 6.08%, glass (2) 11.8%, glass (3) 6.30%, and glass (4) decompd. completely. M. Hosch

ZHILENKO, G.F.

6

Exchange decomposition in the absence of solvent. Investigation of the reciprocal system calcium sulfate + sodium tetraborate ⇄ calcium tetraborate + sodium sulfate. G. F. Zhilenko and N. I. Sverchkov. *Acta Univ. Voronegiensis, Sect. Chem.* 11, No. 1, 41-50; *Khim. Referat. Zhur.* 1940, No. 1, 26.—The following compds. were found: $CaSO_4.CaB_4O_7$, $Na_2B_4O_7.2CaSO_4$, $Na_2B_4O_7.2CaB_4O_7$ (presumably), $CaSO_4.CaB_4O_7$ and $CaSO_4.2Na_2SO_4$. In the binary system Na_2SO_4-$Na_2B_4O_7$ and $CaSO_4.Na_2B_4O_7$ there was observed a sepn. into layers and the soly. boundaries of the components were detd. for the binary systems $Na_2SO_4.Na_2B_4O_7$ and $CaSO_4.Na_2B_4O_7$. The stable diagonal $CaSO_4$-$Na_2B_4O_7$ divides the system into 2 triangles, which differ sharply in their properties. The melts of the triangle $CaSO_4$-Na_2SO_4-$Na_2B_4O_7$ are easily crystd. This triangle contains the greatest region of the sepn. into layers. The melts of the triangle $CaSO_4$-CaB_4O_7-$Na_2B_4O_7$ have a tendency to form glasses.

W. R. Henn

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

BERGER, G.S.; ZHILENKO, G.V.

Using infrared spectoroscopy for the study of collector adsorption on quarts. Izv.vys.ucheb.zav.; tsvet.met. 8 no.2:21-23 '65. (MIRA 19:1)

1. Kazakhskiy nauchno-issledovatel'skiy institut mineral'nogo syr'ya. Submitted May 12, 1964.

ZHILENKO, R.M., inzhener; SHITSKOV, V.S., inzhener.

The BK-215 self mounting portable crane. Nov.tekh.i pered. op. v strei. 18 no.4:14-17 Ap '56. (MIRA 9:7)
(Cranes, derricks, etc.)

L 44771-66 EWT(d)/EWT(m)/EWP(j)/EWP(h)/EWP(1) IJP(c) RM

ACC NR: AP6025683 (A) SOURCE CODE: UR/0413/66/000/013/0149/0149

INVENTOR: Tushnyakov, M. D.; Stepanov, A. I.; Mukhin, Yu. V.; Eygenson, B. M.; Zhilenko, R. M.

ORG: none

26
B

TITLE: Rubberized-track assembly for lift truck and similar vehicles. Class 63, No. 183614 [announced by the Central Design Bureau of the Main Administration for the Mechanization of Construction Work, Main Administration for Assembling and Specialized Construction, USSR (Tsentral'noye konstruktorskoye byuro Glavnoye upravleniye po mekhanizatsii stroitel'nykh rabot Glavnoye montazhnoye spetsial'noye stroitel'stvo SSSR)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 13, 1966, 149

TOPIC TAGS: industrial truck, vehicle component, tracked vehicle

ABSTRACT: An Author Certificate has been issued for a rubberized link of a track-assembly for lift trucks and similar vehicles, consisting of a track with a shoe fastened to it; this is made of a rubber cushion and a rubber plate (see Fig. 1). To increase the life-span of the track chain, the shoe plate is made with rims

Card 1/2 UDC: 629.11.012.658.57

L 44771-66

ACC NR: AP6025683

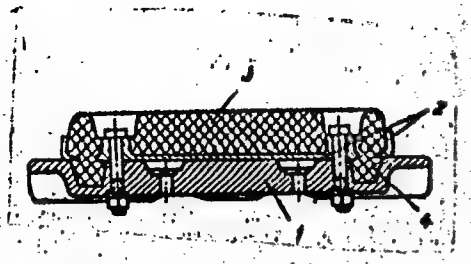

Fig. 1. Track-assembly link

1 - Track; 2 - plate; 3 - rubber cushion; 4 - plug.

enveloping the rubber cushion and is equipped on its internal supporting surface with plugs which enter the appropriate slots in the plate and the track. Orig. art. has: 1 figure. [WH]

SUB CODE: 13/ SUBM DATE: 25Nov64

Card 2/2 ULR

ZHITSURKO, T.E.

Let's guard our bodies of water and preserve our fishes. Okhr. prir. na Dal'. Vost. no.1:107-111 '63.

(MIRA 18:7)

1. Dal'nevostochnyy filial imeni Komarova Sibirskogo otdeleniya AN SSSR.

OTREMBSKIY, V. [Otrembs'kyi, V.], inzh.; ZHILENKO, V. [Zhylenko, V.], inzh.

Radio control. Znan. ta pratsia no. 11:12 N '60. (MIRA 14:4)
(Automobiles--Models--Radio control)

1A

2Y

Spontaneous crystallization in massecuites by means of a crystalline sugar paste. A. I. Vostokov and V. D. Zhilenko. *Sakharnaya Prom.* 22, No. 4, 23-5(1948).—Description and drawings of app. for prepn. and preserving the paste with a uniform size of the nucleus.

V. R. Balkow

ZHILENKO, V.Ye.

Attachment for trimming technological risers on billets and screws. Mashinostroenie no.5:34 S-O '63. (MIRA 16:12)

SOPKO, P.F.; BELYAYEV, V.I.; ZHILENKOV, G.V.

Some data on magmatic rocks of basic and ultrabasic composition in the southern part of Voronezh Province and their metallogenic significance. Dokl. AN SSSR 136 no.2:437-440 '61. (MIRA 14:1)

1. Voronezhskaya kompleksnaya geologorazvedochnaya ekspeditsiya i Voronezhskiy gosudarstvennyy universitet. Predstavleno akademikom D.S. Korzhinskim.

(Voronezh Province—Rocks, Igneous)

ZHILENKOV, I. S.

PROCESSES AND PROPERTIES INDEX

Measurement of the dielectric constant and the dipole moment of liquids in the range from $\epsilon = 2$ to $\epsilon = 88$. A. Pospelov and I. Zhilenkov. *J. Phys. Chem.* (U. S. S. R.) 5, 478-9(1934).—An app. is described for measuring dielec. consts. throughout the whole range with an accuracy of 0.2-0.25% and on vols. of liquid as small as 4 cc. The liquid of unknown ϵ is compared with one of known ϵ by a resonance method. Values of ϵ obtained were: $CHCl_3$ —5.4, Me_2CO —20.5, AmOH —14.1, EtOH —27.5.

P. H. Rathmann

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

ZHILENKOV, I. E.

33

On the Measurement of the Dielectric Constant and Absorption by the Method of the Nernst Bridge Over a Wide Range of Frequencies. I. Zhilenkov. *Journal of Experimental and Theoretical Physics* (U.S.S.R.), v. 16, no. 9, 1946, p. 770-775. (In Russian.)

Deals with errors in measurement of dielectric constant and absorption by the method of the Nernst bridge, over a wide range of frequencies. Analytical solution shows the significance of the fact that the active and reactive components of the liquid condenser's complex resistance are spatially united, and that in the measuring system there is between them a conductor with a definite self-inductance. Results indicate possibility of errors of several per cent in determination of dielectric constant of an electrolyte with a comparatively high conductivity by the relative method.

Physics Lab, Voronezh Agric Inst

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064810009-1"

PROCESSES AND PROPERTIES INDEX

CA

2

The use of the method of secondary oscillations for the investigation of dielectric constants. I. V. Zhilenkov and B. I. Solov'ev. *Izvest. Gosudarst. Nauch.-Issledovatel. Inst. Kolloid. Chim.* 1934, No. 2, 77-84; *Chem. Zentr.* 1936, II, 3895; cf. *C. A.* 32, 6117[7]; 33, 2382[1] and *Izvest. Gosudarst. Nauch.-Issledovatel. Inst. Kolloid. Chim.* 1934, No. 1, 84-7.—The app. for making such measurements was calibrated by measuring the dielec. consts. of mixts. of benzene and transformer oils of known compn. The dielec. consts. could be detd. to the 3rd decimal place with the use of the app. described. The dielec. const. of dry transformer oil was found to be 2.247; that of the wet oil was 2.248; that of the oxidized oil, 2.231; and that of transformer oil through which an elec. discharge had passed was 2.252.

M. O. Moore

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

CA

2

Measurement of the dielectric constant and the dipole moment of some suspensions and gels. I. V. Zhilenkov. *Colloid J.* (U. S. S. R.) 1, 223-31(1935).—A high-frequency bridge app. is described by means of which it is possible to measure dielec. consts. to 1% and data are given for various suspensions of quartz sand, starch, and gelatin gels. The dipole moments of quartz and starch are, resp., $\mu = 15.8 \times 10^{-18}$ and $\mu = 17 \times 10^{-18}$. In det. the bound water in colloidal systems the frequency used must be at least 10^7 periods per sec. F. H. R.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

CB

2

Dielectric constant of water adsorbed by a quartz powder. T. V. Zhilenkov. *Colloid J.* (U. S. S. R.) 4, 473-6(1938); cf. *C. A.* 33, 6117[9].—The dielec. const. of quartz powder increases in the course of adsorption of H_2O or acetone and is almost unaffected by C_6H_6. The dielec. const. of water in the adsorption layer is less than normal.
J. J. Bikerman

COMMON ELEMENTS

MATERIALS INDEX

OPEN

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

USSR/Electronics - Dielectrics Jul 51

"Influence of Reactance in Quarter-Wave Lecher System on Measurement of Dielectric Constant," I. V. Zhilenkov, A. N. Yefremov, Voronezh Agr Inst

"Zhur Eksper i Teoret Fiz" Vol XXI, No 7, pp 839-844

Studied quarter-wave Lecher system for effects of inductance of condenser leads, bending of leads etc., on measurement of capacitance and dielec const. Authors consider most suitable a 3-plate

LC 189T40

USSR/Electronics - Dielectrics (Contd) Jul 51

condenser whose inlets are directly connected into leads of Lecher system. Authors were assisted in laboratory work by N. G. Vorotnikova, student at Voronezh U. Submitted 26 Jun 50.

LC 189T40

V. M. [illegible], I. V. ZELINSKY AND A. N. [illegible]

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064810009-1"

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APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064810009-1"

ZHILENKOV, I. V.

Burak, I.N. and I.V. Zhilenkov. [Institut fizicheskoy khimii AN SSSR, Voronezhskiy sel'skokhozyaystvennyy institut, Voronezhskiy universitet (Institute of Physical Chemistry of AS USSR and Voronezh Agricultural Institute, Voronezh University)] On the Complex Dielectric Constant of Heterogeneous Systems in Connection With Several Problems of Physical Chemistry

(The Physics of Dielectrics; Transactions of the All-Union Conference on the Physics of Dielectrics) Moscow, Izd-vo AN SSSR, 1958. 245 p. 3,500 copies printed.

This volume publishes reports presented at the All-Union Conference on the Physics of Dielectrics, held in Dnepropetrovsk in August 1956 sponsored by the "Physics of Dielectrics" Laboratory of the Fizicheskiy institut imeni Lebedeva AN SSSR (Physics Institute imeni Lebedev of the AS USSR), and the Electrophysics Department of the Dnepropetrovskiy gosudarstvennyy universitet (Dnepropetrovsk State University).

L 26553-66 EWT(m)/T

ACC NR: AP6017357 SOURCE CODE: UR/0062/66/000/003/0393/0398

AUTHOR: Glazun, E. A.; Fedorov, V. M.; Dubinin, M. M.; Zhilenkov, I. V.

ORG: Voronezh Agricultural Institute (Voronezhskiy sel'skokhozyaystvennyy institut); Institute of Physical Chemistry, AN SSSR (Institut fizicheskoy khimii AN SSSR)

TITLE: Investigation of the dielectric properties of water absorbed by zeolites. Report 2. Low-temperature relaxation in the crystalline system, NaA zeolite-water with low fillings

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 3, 1966, 393-398

TOPIC TAGS: zeolite, dielectric property

ABSTRACT: The dielectric behavior of NaA zeolite crystals with low water fillings was studied at frequencies of 10^5-10^7 cps in the 90-250°K range. Two relaxation processes are observable. One of them corresponds to relaxors which are present in the dehydrated zeolite, and is suppressed with an increase in the content of adsorbed water. The other process is apparently associated with the relaxation of the adsorbed water molecules themselves. An attempt was made, based on dielectric measurements, to estimate the number of the most active sites in the zeolite. The authors thank Ya. V. Mirskiy for presenting the zeolite specimen for study. Orig. art. has: 5 figures. [JPRS]

SUB CODE: 20, 07 / SUBM DATE: 05Nov63 / ORIG REF: 006 / OTH REF: 004

Card 1/1 UDC: 541.183+541.67

ACC NR: AP7006025 SOURCE CODE: UR/0062/66/000/007/1129/1135

AUTHOR: Fedorov, V. M.; Glazun, B. A.; Dubinin, M. M.; Zhilenkov, I. V.

ORG: Voronezh Agricultural Institute (Voronezhskiy sel'skokhozyaystvennyy institut); Institute of Physical Chemistry, AN SSSR (Institut fizicheskoy khimii AN SSSR)

TITLE: Investigation of the dielectric properties of water adsorbed by zeolites. Communication 3. Dielectric losses in the system NaA zeolite crystal — water at average degrees of filling

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 7, 1966, 1129-1135

TOPIC TAGS: zeolite, adsorption, dielectric property, dielectric permeability

ABSTRACT: New results of an investigation of NaA zeolite with a water content of 40% of the maximum adsorbable amount are discussed. Construction of the dielectric isotherm (dependence of the static dielectric permeability on the value of the adsorption at constant temperature) and a study of the variation of the parameter 1 - alpha, characterizing the distribution of energies of the active centers, permitted conclusions on the finer subdivision of the active centers determining the relaxation of adsorbed water molecules. Dielectric losses at low frequencies were found to occur in the temperature region from -40 to +20° in NaA zeolite containing water. The dielectric adsorption isotherm had a break at a water content in the zeolite

Card 1/2 UDC: 541.183 + 546.67 + 621.317.33

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ACC NR: AP7006025

corresponding to approximately five to seven molecules per unit cell, evidently due to the structuration of water with increasing adsorption and to the different sorbability on sodium ions bonded to eight-membered and six-membered oxygen rings. A distribution of relaxation times was observed in the region of losses considered, probably due to the energetic heterogeneity of the active centers. The region of distribution became narrower with increasing water content, which indicates development of the structure. The activation energy and entropy of activation for polarization in an electric field increased with increasing water content of over 5%. Measurements of the free energy of formation, together with the break on the dielectric adsorption isotherm indicated that there is a sharp change in the dielectric properties of the adsorbed water at a degree of filling of 20%. The zeolites NaA-I and NaA-II possessed different values of the dielectric permeability eta at identical temperatures and degrees of filling, which is evidently due to differences in the mode of their manufacture. In spite of these differences, the same patterns were observed in both samples. The authors thank Ya. V. Mirskiy and B. A. Lipkind for providing zeolite samples for analysis. Orig. art. has: 3 figures, 3 formulas and 1 table. [JPRS: 38,967]

SUB CODE: 07, 20 / SUBM DATE: 26Feb64 / ORIG REF: 008 / OTH REF: 008

Card 2/2

ZHILENKOV, I.V.

PHASE I BOOK EXPLOITATION SOV/4379

Vsesoyuznaya konferentsiya po fizike dielektrikov. 2d, 1958

Fizika dielektrikov; trudy vtoroy vsesoyuznoy konferentsii (Physics of Dielectrics; Transactions of the 2d All-Union Conference on the Physics of Dielectrics) Moscow, Izd-vo AN SSSR, 1960. 532 p. Errata slip inserted. 5,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Fizicheskiy institut imeni P.N. Lebedeva.

Ed. of Publishing House: Ye.L. Starokadomskaya; Tech. Ed.: I.N. Borokhina; Editorial Board: (Resp. Ed.) G.I. Skanavi, Doctor of Physics and Mathematics (Deceased), and K.V. Filippova, Candidate of Physics and Mathematics.

PURPOSE: This collection of reports is intended for scientists investigating the physics of dielectrics.

COVERAGE: The Second All-Union Conference on the Physics of Dielectrics held in Moscow at the Fizicheskiy institut imeni P.N. Lebedeva (Physics Institute imeni P.N. Lebedev) in November 1958 was attended by representatives of the principal scientific centers of the USSR and of several other countries. This collection contains most of the reports presented at the conference and summaries of the discussions which followed. The reports in this collection deal with dielectric properties, losses, and polarization, and with specific inductive capacitance of various crystals, chemical compounds, and ceramics. Photoelectrets, ferroelectric crystals, and various radiation and irradiation effects on dielectrics are investigated. The volume contains a list of other papers presented at the conference dealing with polarization, losses, and breakdowns of dielectrics, which were published in the journal Izvestiya AN SSSR, seriya fizicheskaya, No. 1 and 2, 1960. No personalities are mentioned. References accompany each report.

68182
SOV/58-59-5-10838

5.4600

Translation from: Referativnyy Zhurnal Fizika, 1959, Nr 5, p 133 (USSR)

AUTHORS: Burak, I.N., Zhilenkov, I.V.

TITLE: On the Complex Dielectric Constant of Heterogeneous Systems in Relation to Some Problems of Physical Chemistry

PERIODICAL: V sb.: Fiz. dielektrikov. Moscow, AS USSR, 1958, pp 118 - 123

ABSTRACT: The authors studied the frequency dependence of the real (ε') and imaginary (ε'') parts of the dielectric constants of S1200-1 and K-2 silica gels in the region of radio and audio frequencies at positive and negative temperatures and in the case of varying quantities of adsorbed water. In the region of audio frequencies ε'' goes through a relaxation maximum in both silica gels. Moreover, in the case of K-2, in which phenomena due to conduction are more weakly expressed, a second maximum was observed in the region of radio frequencies. With a rise in temperature the maxima of ε'' shift toward the higher frequencies. No essential changes take place in the dielectric properties of the system when it passes through 0°C. The relaxation in the region of radio frequencies, which is accompanied by a drop in ε'' approximately

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68182
SOV/58-59-5-10838

On the Complex Dielectric Constant of Heterogeneous Systems in Relation to Some Problems of Physical Chemistry

down to the optical value, is apparently connected with the molecular relaxation of the adsorbed water. On increasing the adsorption of water the HF-maximum shifts slightly toward the lower frequencies; this testifies to the influence of the structure of a heterogeneous "adsorbent-adsorbate" system on the molecular relaxation of the adsorbed substance. The authors derived and analyzed expressions for the ε'' of the following two-component systems: a mixture of grains, plates in a matrix, pellets in a matrix, and limiting Wiener forms. It was found that the distorting influence of the structure of a heterogeneous system is weakest in the case of a mixture of grains and plates in a matrix. The Kole and Kole (russ. spell.) curve for a silica gel with adsorbed water extends considerably farther than it should as a mere consequence of the system's heterogeneity. So one may conclude that the molecules of an adsorbed substance possess a wider array of time constants than those of a substance in the normal state. (In-t fiz. khimii AS USSR, S.-kh. in-t, Un-t, Voronezh).

V. Lozovskiy

Card 2/2

BURAK, I.N.; ZHILENKOV, I.V.

Complex permittivity of inhomogeneous dielectrics. Izv.vys.ucheb. zav.; fiz. no.6:106-113 '59. (MIRA 12:4)

1. Voronezhskiy sel'skokhozyaystvennyy institut.
(Dielectrics)

SOV/139-58-6-17/29

AUTHORS: Burak, I.N. and Zhilenkov, I.V.

TITLE: Complex Dielectric Permittivity of Inhomogeneous Dielectrics (Kompleksnaya dielektricheskaya pronitsayemost'neodnorodnykh dielektrikov)

PERIODICAL: Izvestiya Vysshikh Uchebnykh Zavedeniy, Fizika, 1958, Nr 6, pp 106-113 (USSR)

ABSTRACT: The authors derive expressions for complex permittivity ($\bar{\varepsilon} = \varepsilon' - i\varepsilon''$) of two-phase heterogeneous systems, assuming that one of the components is lossy (Debye-type dispersion) and the other (the matrix) is a perfect dielectric. The authors deal first with dielectrics consisting of two parallel layers and as a concrete example a double layer of ice (at -30°C) and quartz is discussed. It is found that the Debye maximum frequency of the ice-quartz system is displaced depending on the structure of the system and the relative amounts of the two components. The major portion of the paper deals with two-phase systems consisting of (a) spheres in a matrix, (b) platelets in a matrix and (c) an assembly of grains of random form. Bruggeman's (Ref 4) and Böttcher's (Ref 5) formulae are used to show

Card 1/2

SOV/139-58-6-17/29

Complex Dielectric Permittivity of Inhomogeneous Dielectrics

that ε' and ε" of heterogeneous two-phase systems lie between the limiting Wiener (Ref 3) values for a two-layer dielectric. [The paper is entirely theoretical.] There are 4 figures and 8 references of which 4 are English and 4 German.

ASSOCIATION: Voronezhskiy Sel'skokhozyaystvennyy Institut (Voronezh Agricultural Institute)

SUBMITTED: 6th January 1958

Card 2/2

CHELISHCHEV, B.A., inzh.; ZHILENKOV, N.N., inzh.

Technological process and the rotor line in the production of sleeve nuts. [Nauch. trudy] ENIKMASha 8:100-118 '64. (MIRA 18:3)

GOL'DIN, A.L., red.; ZHILENKOV, V.N., red.; IZMAYLOVA, R.A., red.; KRAYEV, G.A., red.; KRICHEVSKIY, I.Ye., red.; KYAKK, V.A., red.; SOKOLOV, I.B., red.; SUDAKOV, V.B., red.; FOMIN, G.D., red.; SHUL'MAN, S.G., red.; ABRAMSON, L.S., tekhn. red.

[Collection of reports on hydraulic engineering; the third engineering conference of young scientists] Sbornik dokladov po gidrotekhnike; tret'ia nauchno-tekhnicheskaia konferentsiia molodykh nauchnykh rabotnikov. Moskva, Gosenergoizdat, 1961. 183 p. (MIRA 17:2)

1. Leningrad. Nauchno-issledovatel'skiy institut gidrotekhniki.

ZHILENKOV, V.N., inzh.

Some capillarity problems in concrete. Izv.VNIIG 64:257-262 '60. (MIRA 14:5)

(Capillarity) (Concrete)

ZHILENKOV, V.N.

Determining the capillary pressure of water in concrete. Inzh.-fiz.zhur. 5 no.12:96-99 D '62. (MIRA 16:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrotekhniki imeni B.Ye.Vedeneyeva, Leningrad.
(Capillarity) (Concrete--Testing)

ZHILENKOV, V.N.

Determination of interstitial pressure in a media with low permeability. Sbor. dokl. po gidr. VNIIG no.4:247-253 '62. (MIRA 18:7)

ZHILENKOV, V.N., inzh.

Initial pressrur gradient of water percolation through concrete. Izv. VNIIG 76:191-195 '64.

Experimental method of determining the permeability of concrete. Ibid.:197-204 (MIRA 18:10)

ZHILEVICH, I., inzhener (g.Vil'nyus).

Are we not on the eve of radical changes in photography and printing? Tekh.mol. 24 no.11:12-13 N '56. (MLRA 9:12)
(Photography--Research) (Printing--Research)

ZHILEVICH, I., inzhener (g.Vil'nyus).

Pictures drawn by means of magnetic powder. Tekh.mol. 24 no.11: 13-15 N '56. (MLRA 9:12)

(Printing machinery and supply)

ZHILEVICH, I. I.

I. I. Zhilevich, "A Device for the Reception of Phototelegraph Images with the Aid of Ferromagnetic Particles."

Authors' Certificates, Elektrosvyaz', 1958, No. 7, pp 77.

ZHILEVICH, Ivan Iosifovich; NEMIROVSKIY, Ye.L.; IOFIS, Ye.A., kand. tekhn. nauk, red.; PANFILOV, N.D., red.; TUMANOVSKIY, R.F., tekhn. red.

[Electrophotography] Elektrofotografiia. Pod red.E.A.Iofisa. Moskva, Gos. izd-vo "Iskusstvo," 1961. 125 p. (Biblioteka fotoliubitelia, no.24) (MIRA 15:3)

(Xerography)

33516
S/619/61/000/019/006/019
D039/D112

3.9300 (1019,1327)

AUTHORS: Borisevich, Ye.S.; Zhilevich, I.I.; Aronov, L.Ye., Arshvila, S.V.; Zabelin, M.V.

TITLE: The SEO-I seismic electrographic oscillograph

SOURCE: Akademiya nauk SSSR. Institut fiziki Zemli. Trudy, no.19 (186). Moscow, 1961, Seysmicheskiye pribory, 44-51

TEXT: The authors describe the СЭО-I (SEO-I) seismic electrographic oscillograph for automatically recording seismic processes. It does not use the helical-line recording method with its intersecting recording lines, but produces a clear recording of the seismic process and the immediately preceding period (by means of a memory) only. The recording is suitable for both visual analysis and automatic mechanical processing, the principles of which are now being developed. The device can be used at either permanent or mobile seismic stations. Its mode of operation is as follows: Light from a luminaire is reflected by a mirror on to the windows of three galvanometers, is reflected back by a small mirror attached to the measuring system of the galvanometer on to the first mirror, and reflected

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D039/D112

The SEO-I seismic .....

and its current consumption does not exceed 1 a; Its dimensions are 255 x 240 x 660 mm, and its weight 29 kgf. Its optical, kinetic and electrical systems are described and illustrated. It was designed by Ye.S. Borisevich and I.I. Zhilevich (Author's Certificate no. 126826); besides, the authors of this article, designers B.N. Pevzner and M.K. Dubrovina and team-leader-mechanic F.F. ..enkov took part in its construction. There are 5 figures and 7 Soviet-bloc references.

Card 3/3

ZHILEVICH, I.I., red.; KANOVICH, N., red.; ABROMAYTENE, G. [Abromaitiene, G.], red.; LABKAUSKAS, S., red.; URBONAS, A., tekhn. red.

[Electrophotography and magnetography; transactions of the Scientific and Technical Conference on Problems of Electrography held in Vilnius on December 16-19, 1958] Elektrofotografiia i magnitografiia; trudy. Pod red. I.I.Zhilevicha. Vil'nius, Respublikanskii in-t nauchno-tekhn. informatsii i propagandy, 1959. 380 p. (MIRA 17:3)

1. Nauchno-tekhnicheskaya konferentsiya po voprosam elektrografii, Vil'na, 1958. 2. Nauchno-issledovatel'skiy institut elektrografii, Vil'nius (for Zhilevich).

ZHILEVICH, Ivan Iosifovich; FREGER, D.P., red.izd-va; GVIRTS, V.L., tekhn. red.

[Electrography] Elektrografiia. Leningrad, 1963. 28 p. (Leningradskii dom nauchno-tekhnicheskoi propagandy. Seriia: Poluprovodniki, no.15) (MIRA 17:4)

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064810009-1"

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064810009-1"

ZHILEYKIN, Ya.M. (Moskva)

Approximate method of solution of the Dirichlet problem for a Laplace equation in a rectangular parallelepiped. Zhur. vych. mat. i mat. fiz. 5 no.2:345-347 Mr-Ap '65.

(MIRA 18:5)

DMITRIYEV, I.S.; ZHILEYKIN, Ya.M.; NIKOLAYEV, V.S.

Calculation of the effective cross sections of K-electron losses by fast hydrogen-like ions in collisions with hydrogen and helium atoms. Zhur. eksp. i teor. fiz. 49 no.2:500-514 Ag '65. (MIRA 18:9)

1. Institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta.

ZHILEYKIN, Ya.M.

Approximate solution of the Dirichlet problem for Laplace's equation. Dokl. AN SSSR 155 no. 5:999-1002 Ap '64. (MIRA 17:5)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova. Predstavleno akademikom P.S.Novikovym.

S/0208/64/004/004/0749/0753

ACCESSION NR: AP4042759

AUTHOR: Zhileykin, Ya. M. (Moscow)

TITLE: Concerning the approximate solution of integral equations

SOURCE: Zhurnal vy*chislitel'noy matematiki i matematicheskoy fiziki, v. 4, no. 4, 1964, 749-753

TOPIC TAGS: integral equation, integration, periodic function, approximate integration, Green function, Laplace operator, Fredholm equation

ABSTRACT: The author discussed the approximate solution of the Fredholm integral equation of the second type $u(P) = \lambda \int_{G_s} K(P, Q)\, u(Q)\, dQ + f(P)$, (1) where $f(P) = f(x_1, \ldots, x_s) \in E_s^\alpha(C)$ and where K(P,Q) is a periodic function of all variables with unit period, smooth for all $P \in G'_s$ (except for Q = P) where the function is of the type $1/r_{PQ}^{s/2-s/\alpha}$. G'_s is an arbitrary strictly internal subset of G_s $[0 < x_i < 1,\ i = 1, 2, \ldots, s]$ — the s-dimensional unit cube with border Γ. Assuming that the algorithm of computing any iteration of K(P,Q) is known, the author

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ACCESSION NR: AP4042759

proposes and proves three lemmas and one theorem: Lemma 1: The iteration $K_n(P,Q)$, as a function of any s variables, belongs to the class $E_s^{\alpha}(M^n n^n)$ where $\alpha < n(\delta + s)/2s$ and M - constant, independent of n. Lemma 2: If in the complex plane z on the circumference $|z| = |\lambda|$ there is no one special point resolving relationship (1) above, then for any natural l and n, the function

$$\varphi(P) = u(P) - f(P) - \sum_{i=1}^{l} \lambda^i \int_{G_s} K_i(P, Q) f(Q)\, dQ \qquad (2)$$

is a solution of the integral relationship

$$\varphi(P) = \lambda^n \int_{G_s} K_n(P, Q) \varphi(Q)\, dQ + f_1(P), \qquad (3)$$

, where

$$f_1(P) = \int_{G_s} \sum_{i=l+1}^{n+l} \lambda^i K_i(P, Q) f(Q)\, dQ. \qquad (4)$$

. Lemma 3: Let $f(P) \in E_s^{\alpha_1}(C)$; then for $n = l+1$ the solution of the integral relationship (3) belongs to the class $E_s^{\alpha_1}(M_1^l l^{2l})$ where $\alpha_1 < (l+1)(\delta + s)/2s$ and M_1 is independent of l. Theorem: Let that on the circumference $|z| = |\lambda|$ there is no one special point resolving relationship (1). Then for $l \sim \sqrt{\ln N}$ and $N_1 \sim N^{2s\alpha/(2s\alpha+(\delta+s))\sqrt{\ln N}} (\ln N)^{2s/(\delta+s)}$, $N_2 \sim N^{(\delta+s)\sqrt{\ln N}/(2s\alpha+(\delta+s))\sqrt{\ln N}} (\ln N)^{-(7s+\delta)/2(\delta+s)}$, relationship (1) is

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satisfied by the equality

$$u[M_j(N_1)] = \tilde{\varphi}[M_j(N_1)] + f[M_j(N_1)] + \frac{1}{N}\sum_{k=1}^{N}\sum_{\nu=1}^{l}\lambda^{\nu}K_{\nu}[M_j(N_1), \tau[M_k(N), M_j(N_1)]]\, f[\tau(M_k(N), M_j(N_1))] \times \prod_{i=1}^{s}\tau_{\varepsilon}'\left[\left\{\frac{a_i k}{N}\right\}, \left\{\frac{b_i j}{N_1}\right\}\right] + O\left(\frac{1}{N^{a-\varepsilon}}\right),$$

where $\tau[M_k(N), M_j(N_1)]$ is a point with coordinates $\tau\left[\left\{\frac{a_i k}{N}\right\}, \left\{\frac{b_i j}{N_1}\right\}\right]$, $i = 1, 2, \ldots, s$, and ε - any small positive number. The author expresses his thanks to N. M. Korobov for his valuable observations and constant attention. Orig. art. has: 16 equations.

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